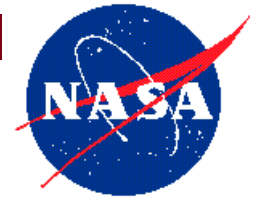


**S**mall  
**B**usiness  
**I**nnovation  
**R**esearch

# A Network/Bus Transceiver with Multi-Channel Fiber Optic Interconnects

***Space Photonics, Inc. (formerly Optical Networks, Inc.)***  
***Fayetteville, AR***



## **INNOVATIONS**

Parallel Fiber Optic Transmitter (PFOTX) with up to 12-laser/fiber channels  
Parallel Fiber Optic Receiver (PFORX) with up to 12-photodiode/fiber channels

## **ACCOMPLISHMENTS**

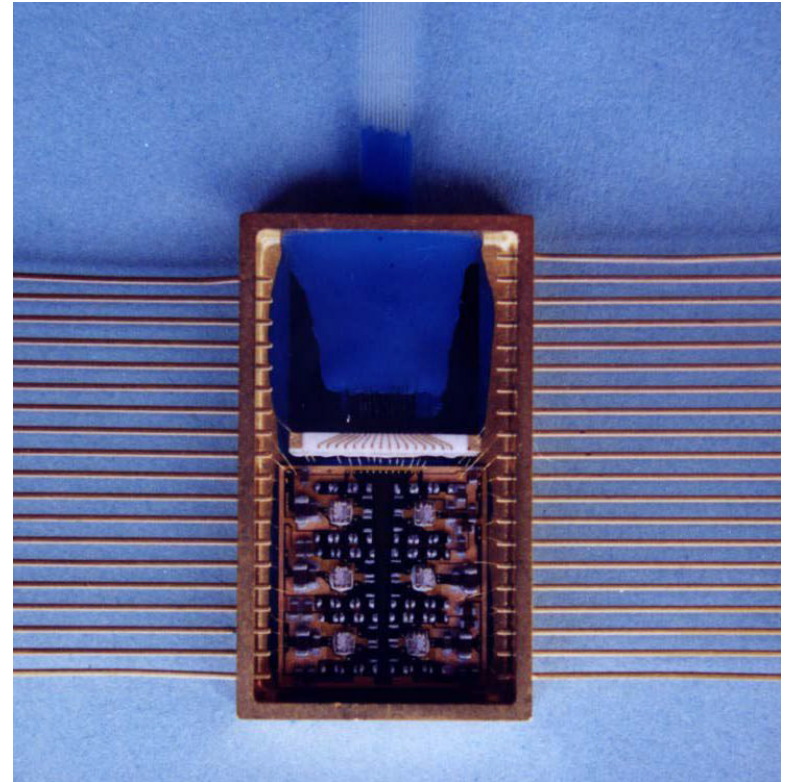
Radiation tolerant 1 Gbps point-to-point links using 8-bit-channels at 125 Mbps per channel  
Individual PFOTX channels to 1 Gbps per channel  
High density fiber ribbon and packaging interfaces  
Laser and photodiode array devices capable of 2 Gbps per channel providing potential links as high as 24 Gbps aggregate bandwidth

## **COMMERCIALIZATION**

A Phase III contract with NASA and DOD is in place for the NASA EO-1 New Millenium Program  
Commercial Aerospace

## **GOVERNMENT/SCIENCE APPLICATIONS**

Government space systems  
Goddard is exploring various ways to use this technology.



***12-Channel Receiver PFORX***

**Goddard Space Flight Center**  
1994 Phase II; SS5-013; 5/11/99

Points of Contact:  
NASA - Phil Luers; 301-286-5777  
Optical Networks, Inc. - Chuck Chalfant; 501-575-5316